



Mortars



Advance Planning Briefing to Industry Munitions Executive Summit



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PM Mortars Vision

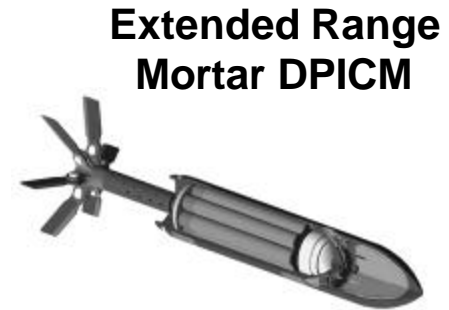
Revolutionary performance increases with Digital Fire Control and Precision Munitions



**Mortar Fire
Control
System**



**Precision Guided
Mortar Munition**



**Extended Range
Mortar DPICM**

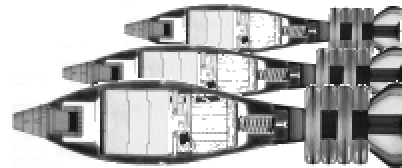
Evolutionary continual product improvement in Ammunition, Fuzes and Weapon Systems

**Insensitive
Munitions**

60mm IM HE
M720E1 & XM768



120mm IM HE
M934A1E1



Infrared Illumination



Fuzes



Electronic
Time



M734A1



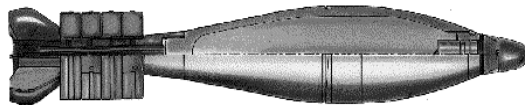
XM783

**120mm Mortar
for the BCT**



Mortar Families of Ammunition

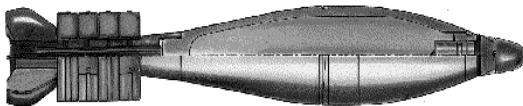
120, 81, & 60mm



**High Explosive:
Multi-Option Fuze
(Go to War Round)**



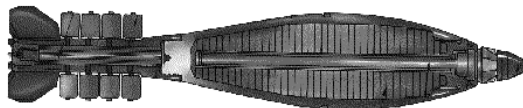
Illumination



**High Explosive:
Point Detonation Fuze
(Training)**



Infrared Illumination



Smoke



Full Range Training Round

**81 & 60mm
only**



**Short Range
Training Round**

PM Mortars Ammunition Acquisition Strategies Support Army Transformation Strategy

Two-Pronged

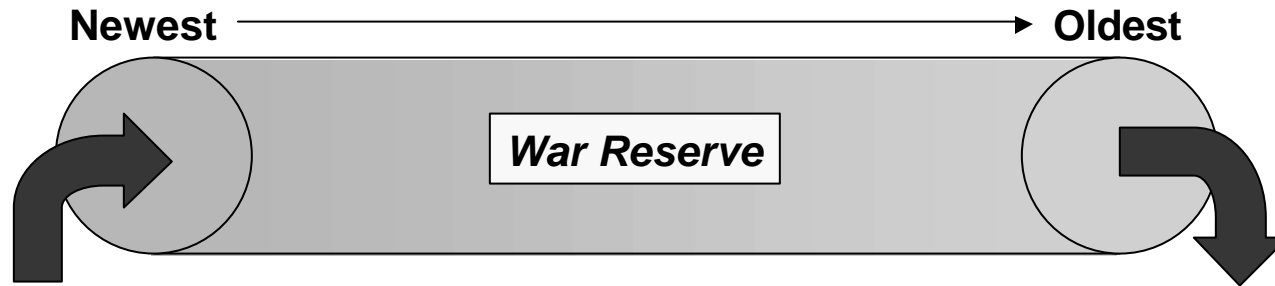


**Leap Ahead Systems
for Objective & Future
Forces**



**Horizontal Technology
Insertion to Existing
Systems Supporting the
Legacy Force**

Mortar Ammunition HTI/HPI



Into War Reserve:

- New Production
- Build New, Improved Rounds

Out of War Reserve:

- Annual Training Usage
- Fire Old Rounds

Key Principles

? *Continuously Improve Products*

- 40+ On-going P³I Efforts

? *Leverage HTI Across:*

- Functions (HE/Smoke/Illum)
- Calibers (60/81/120)

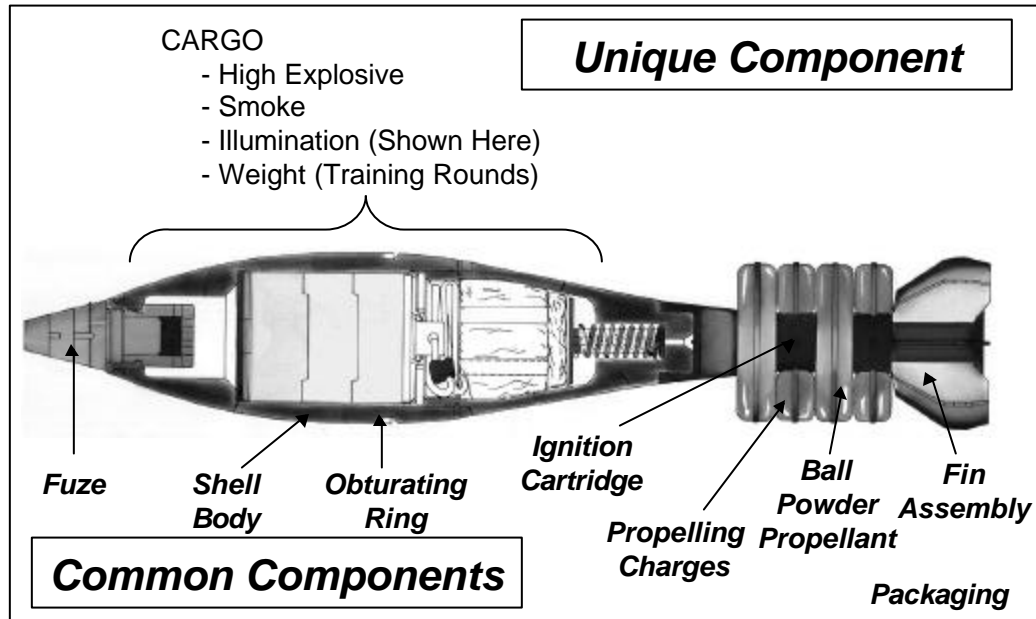
? *Fund Most Improvements with Production Dollars*

- Non-performance enhancing

Continuously Replenish War Reserve

- Fire Oldest Rounds for Annual Training
- Replenish with Newest P³I Round

Mortar HPI: Horizontal Production Integration



Situation:

- **Final Load & Assembly Requires Specific Expertise**
 - HE: Explosive Melt Pour
 - Smoke: White Phosphorus
 - Illum: Illum Composition, Parachute Deployment
- **Primary Components Common Across All Mortar Rounds**

Solution:

- **PM is Systems Integrator for Ammunition Production**
 - PM procures common components and provides as GFE
- **Approved by AAE in 1996 for 120mm Ammunition Family**
 - Implementing for 60mm Ammunition Family
- **Requires PM Control of:**
 - ▶ Acquisition Strategy
 - ▶ Funds & Contracts
 - ▶ Configuration Management
 - ▶ Hardware
- **Possible because PM manages complete Family of Ammunition**

Applies HTI concept to Ammunition in Production

Planned FY01 Ammo Procurement Actions

- **120mm Shell Bodies**
 - Planned February 01 RFP release
 - Multi-year procurement (210,468 shell bodies)
 - Options on top of multi-year quantities
 - Restricted to U.S. and Canada
- **60mm HE and Full Range Practice Round Load, Assemble and Pack**
 - Base quantity 99,500 60mm M720E1/XM768 HE and 9,000 XM769 Full Range Practice Rounds
 - Four ranged quantity options (FY02-FY05)
 - Planned March 01 RFP release
 - Restricted to U.S. and Canada

Planned FY01 Ammo Procurement Actions

- **120mm M934A1 IM Product Improvement**
 - Planned RFP Release February 01
 - Full and Open Competition
 - 18 month program followed by PQT
- **XM784/XM785 Electronic Time Fuze**
 - Materiel Change program
 - Restricted to U.S. and Canada
 - RFP released 1 February 2001
 - RFP closes 12 March 2001
 - Includes initial production option

Planned FY01 Ammo Procurement Actions

- **Black Powder Materiel Change Program**
 - Consists of two separate RFPs
 - RFP to qualify alternative to black powder
 - RFP to qualify black powder coating
 - Full and Open Competition
 - Multiple awards if economical
 - Side by side evaluation and down select prior to final Production Qualification Test

Planned FY01 Ammo Procurement Actions

- **Parachutes for 120mm, 81mm, and 60mm Illumination Rounds**
 - **Planned RFP Release March 01**
 - **Full and Open Competition**
 - **Base contract 21,021 60mm parachutes**
 - **Four ranged quantity options (FY02-FY05)**

Other FY01/FY02 Ammo Procurement Actions

- Other contract actions planned for award in FY01 and FY02 will be accomplished against existing contract options

Requirements Analysis/Trends

- **Ammunition for training will receive priority for funding**
 - 60mm XM769 Full Range Practice Round
 - 60mm XM768 HE Cartridge
 - 81mm M816 IR Illumination Cartridge
 - 120mm M983 IR Illumination Cartridge
 - PM Mortars conducting Materiel Change program for Army 81mm M879E1 Full Range Practice Round
 - **Expect annual procurement buys to follow in FY03**
- **Working to reinsert PGMM and ER-DPICM in the Army POM**

PM Mortars FY01-FY02 Funded Ammo Programs

60mm Ammo

M720E1 HE *

XM768 HE *

M721 Visible Light Illumination

M767 Infrared Illumination

XM769 FRTR *

120mm Mortar System/Ammo

M934A1 HE *

M929 Smoke *

XM930 Visible Light Illumination*

M983 Infrared Illumination*

81mm Ammo

XM816 IR Illum **

*** Out-year buys exist in the POM**

****Not currently funded - Expect FY02 Plus-up or Reprogramming**

HQ, MAC MORTAR REQUIREMENTS

APBI - 14 FEB 01

Nomenclature	Qty 01	Qty 02	Qty Outyears	Anticipated Strategy
M888 60MM	0	0	Yes	SS
M722 60MM WP	0	0	Yes	SS
M880 81MM Refurb Kit	0	175.5	Yes	SS
M819 81MM RP	10.1	7.6	Yes	SS

HQ, MAC MORTAR REQUIREMENTS

Mortar Components - APBI - 14 FEB 01

Nomenclature	Qty 01	Qty 02	Qty Outyears	Anticipated Strategy
M888 PROJ MPTS	0	0	Yes	US&C
M27 FIN ASSY	0	0	Yes	SBSA
M702 IGN CTG	0	0	Yes	SS
M204 PROP CHG	0	0	Yes	SS
CNTR ASSY f/M204	0	0	Yes	SS
M722 PROJ MPTS	0	0	Yes	US&C
M85 BURSTER	0	0	Yes	SS
CNTR ASSY f/M205	41.5	31.2	Yes	SS
M752 IGN CTG	10.5	7.9	Yes	SS

Summary

- Opportunities exist to compete for production procurements at TACOM-ARDEC (PM Mortars) and MAC
- PM Mortars leveraging ongoing production programs to continuously improve mortar ammunition
 - Ensures that War Reserve is comprised of most effective rounds
- RDT&E funds required to support next generation ammunition

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